

PUBLIC HEALTH LABORATORY SERVICE

(Directed by the Medical Research Council for the Ministry of Health)

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Central Enteric Reference Laboratory,
CENTRAL PUBLIC HEALTH LABORATORY
COLINDALE AVENUE
LONDON, N.W.9

10th January, 1955,

Dear Joshua,

Thanks a lot for your card. Clive, Bruce and I were rather hoping that you would send us a reply to our last tape letter. We didn't think that its merit was so high that it would stun you into silence. So, when you feel like it, please send us more recorded news. I have now a new very high-fidelity tape machine which does $3\frac{3}{4}$ and $7\frac{1}{2}$ inches and is double-track, so your future letters to us can be recorded at the slower speed.

I was interested to hear about Aleck and Helens' marriage. Please give them my very best wishes.

As you know, I have been director of this department since April of last year. The job has its headaches (I expect you can guess who is one of them) but, by and large, things run reasonably smoothly.

The work has gone very well here for the past few months and the following points have emerged:

- (1) The permanently changed phages in the so-called Vi-phage II adaptations are really selected host-range mutants occurring in phage A.
- (2) The phenotypically changed phages have been shown, by single cycle experiments, to be true phenotypic modifications.
- (3) The phenotypic adaptation of phage A to heterologous types is almost certainly due to some sort of physiological heterogeneity in the phage population and not in the bacterial population as Lu and his group postulate.
- (4) I have good evidence that the mutations giving rise to the different genotypically changed phages occur at different loci, and recombination experiments are now under way to follow this up.

I heard that you were taking a Sabbatical Year in Israel. Is this true? If it is, when are you going and will you be passing through England on your way?

Kind regards to Esther and everyone else.